

Table 1. Average starting salaries of veterinary medical college graduates, 1998*Type of practice*

Large animal, exclusive	\$37,200
Large animal, predominant	37,500
Mixed animal	35,900
Small animal, exclusive	37,600
Small animal, predominant	36,300
Equine	29,200

SOURCE: American Veterinary Medical Association

New veterinary medical college graduates who enter the Federal Government usually start at \$37,700. Beginning salaries were slightly higher in selected areas where the prevailing local pay level was higher. The average annual salary for veterinarians in the Federal Government in nonsupervisory, supervisory, and managerial positions was \$61,600 in 1999.

Related Occupations

Veterinarians prevent, diagnose, and treat diseases, disorders, and injuries in animals. Those who do similar work for humans include chiropractors, dentists, optometrists, physicians, and podiatrists.

Veterinarians have extensive training in physical and life sciences, and some do scientific and medical research, closely paralleling occupations such as biological, medical, and animal scientists.

Animal trainers, animal breeders, and veterinary technicians work extensively with animals. Like veterinarians, they must have patience and feel comfortable with animals. However, the level of training required for these occupations is substantially less than that needed by veterinarians.

Sources of Additional Information

For more information on careers in veterinary medicine and a list of U.S. schools and colleges of veterinary medicine, send a letter-size, self-addressed, stamped envelope to:

✉ American Veterinary Medical Association, 1931 N. Meacham Rd., Suite 100, Schaumburg, IL 60173-4360.

For information on scholarships, grants, and loans, contact the financial aid officer at the veterinary schools to which you wish to apply.

For information on veterinary education, write to:

✉ Association of American Veterinary Medical Colleges, 1101 Vermont Ave. NW., Suite 710, Washington, DC 20005.

For information on the Federal agencies that employ veterinarians and a list of addresses for each agency, write to:

✉ National Association of Federal Veterinarians, 1101 Vermont Ave. NW., Suite 710, Washington, DC 20005.

Health Assessment and Treating Occupations

Dietitians and Nutritionists

(O*NET 32521)

Significant points

- Employment of dietitians is expected to grow about as fast as the average for all occupations through the year 2008 due to increased emphasis on disease prevention by improved health habits.
- Dietitians and nutritionists need at least a bachelor's degree in dietetics, foods and nutrition, food service systems management, or a related area.

Nature of the Work

Dietitians and nutritionists plan food and nutrition programs and supervise the preparation and serving of meals. They help prevent and treat illnesses by promoting healthy eating habits, scientifically evaluating clients' diets, and suggesting diet modifications, such as less salt for those with high blood pressure or reduced fat and sugar intake for those who are overweight.

Dietitians run food service systems for institutions such as hospitals and schools, promote sound eating habits through education, and conduct research. Major areas of practice are clinical, community, management, research, business and industry, and consultant dietetics.

Clinical dietitians provide nutritional services for patients in institutions such as hospitals and nursing homes. They assess patients' nutritional needs, develop and implement nutrition programs, and evaluate and report the results. They also confer with doctors and other health care professionals in order to coordinate medical and nutritional needs. Some clinical dietitians specialize in the management of overweight patients, care of the critically ill, or of renal (kidney) and diabetic patients. In addition, clinical dietitians in nursing homes, small hospitals, or correctional facilities may also manage the food service department.

Community dietitians counsel individuals and groups on nutritional practices designed to prevent disease and promote good health. Working in places such as public health clinics, home health agencies, and health maintenance organizations, they evaluate individual needs, develop nutritional care plans, and instruct individuals and their families. Dietitians working in home health agencies provide instruction on grocery shopping and food preparation to the elderly, individuals with special needs, and children.

Increased interest in nutrition has led to opportunities in food manufacturing, advertising, and marketing, in which dietitians analyze foods, prepare literature for distribution, or report on issues such as the nutritional content of recipes, dietary fiber, or vitamin supplements.

Management dietitians oversee large-scale meal planning and preparation in health care facilities, company cafeterias, prisons, and schools. They hire, train, and direct other dietitians and food service workers; budget for and purchase food, equipment, and supplies; enforce sanitary and safety regulations; and prepare records and reports.

Consultant dietitians work under contract with health care facilities or in their own private practice. They perform nutrition screenings for their clients, and offer advice on diet-related concerns such as weight loss or cholesterol reduction. Some work for wellness programs, sports teams, supermarkets, and other nutrition-related businesses. They may consult with food service managers, providing expertise in sanitation, safety procedures, menu development, budgeting, and planning.

Working Conditions

Most dietitians work a regular 40-hour week, although some work weekends. Many dietitians work part time.

Dietitians and nutritionists usually work in clean, well-lighted, and well-ventilated areas. However, some dietitians work in warm, congested kitchens. Many dietitians and nutritionists are on their feet for most of the workday.

Employment

Dietitians and nutritionists held about 54,000 jobs in 1998. Over half were in hospitals, nursing homes, or offices and clinics of physicians.



Dietitians and nutritionists plan food and nutrition programs and supervise food preparation and service.

State and local governments provided about 1 job in 6—mostly in health departments and other public health related areas. Other jobs were in restaurants, social service agencies, residential care facilities, diet workshops, physical fitness facilities, school systems, colleges and universities, and the Federal Government—mostly in the Department of Veterans Affairs. Some were employed by firms that provide food services on contract to such facilities as colleges and universities, airlines, correctional facilities, and company cafeterias.

Some dietitians were self-employed, working as consultants to facilities such as hospitals and nursing homes, and seeing individual clients.

Training, Other Qualifications, and Advancement

High school students interested in becoming a dietitian or nutritionist should take courses in biology, chemistry, mathematics, health, and communications. Dietitians and nutritionists need at least a bachelor's degree in dietetics, foods and nutrition, food service systems management, or a related area. College students in these majors take courses in foods, nutrition, institution management, chemistry, biochemistry, biology, microbiology, and physiology. Other suggested courses include business, mathematics, statistics, computer science, psychology, sociology, and economics.

Twenty-seven of the 41 States with laws governing dietetics require licensure, 13 require certification, and 1 requires registration. The Commission on Dietetic Registration of the American

Dietetic Association (ADA) awards the Registered Dietitian credential to those who pass a certification exam after completing their academic coursework and supervised experience. Since practice requirements vary by State, interested candidates should determine the requirements of the State in which they want to work before sitting for any exam.

As of 1999, there were 235 bachelor's and master's degree programs approved by the ADA's Commission on Accreditation/Approval for Dietetics Education (CAADE). Supervised practice experience can be acquired in two ways. There are 51 ADA-accredited coordinated programs combining academic and supervised practice experience in a 4- to 5-year program. The second option requires completion of 900 hours of supervised practice experience, either in one of the 225 CAADE-accredited internships or in one of the 25 CAADE-approved preprofessional practice programs. Internships and preprofessional practice programs may be full-time programs lasting 9 to 12 months, or part-time programs lasting 2 years. Students interested in research, advanced clinical positions, or public health may need a graduate degree.

Experienced dietitians may advance to assistant, associate, or director of a dietetic department, or become self-employed. Some dietitians specialize in areas such as renal or pediatric dietetics. Others may leave the occupation to become sales representatives for equipment, pharmaceutical, or food manufacturers.

Job Outlook

Employment of dietitians is expected to grow about as fast as the average for all occupations through 2008 due to increased emphasis on disease prevention by improved dietary habits. A growing and aging population will increase the demand for meals and nutritional counseling in nursing homes, schools, prisons, community health programs, and home health care agencies. Public interest in nutrition and the emphasis on health education and prudent lifestyles will also spur demand, especially in management. Besides employment growth, job openings will also result from the need to replace experienced workers who leave the occupation.

The number of dietitian positions in hospitals is expected to grow slowly as hospitals continue to contract out food service operations. On the other hand, employment is expected to grow fast in contract providers of food services, social services agencies, and offices and clinics of physicians.

Employment growth for dietitians and nutritionists may be somewhat constrained by some employers substituting other workers such as health educators, food service managers, and dietetic technicians. Growth also is constrained by limitations on insurance reimbursement for dietetic services.

Earnings

Median annual earnings of dietitians and nutritionists were \$35,020 in 1998. The middle 50 percent earned between \$28,010 and \$42,720 a year. The lowest 10 percent earned less than \$20,350 and the highest 10 percent earned more than \$51,320 a year. Median annual earnings in the industries employing the largest number of dietitians and nutritionists in 1997 were as follows:

Hospitals	\$34,900
Local government, except education and hospitals	31,200
Nursing and personal care facilities	28,400

According to the American Dietetic Association, median annual income for registered dietitians in 1997 varied by practice area as follows: clinical nutrition, \$35,500; food and nutrition management, \$44,900; community nutrition, \$34,900; consultation and business, \$46,000; and education and research, \$45,200. Salaries also vary by years in practice, educational level, geographic region, and size of community.

Related Occupations

Dietitians and nutritionists apply the principles of food and nutrition in a variety of situations. Jobs similar to management dietitians' include home economists and food service managers. Nurses and health educators often provide services related to those of community dietitians.

Sources of Additional Information

For a list of academic programs, scholarships, and other information about dietetics, contact:

✶ The American Dietetic Association, 216 West Jackson Blvd., Suite 800, Chicago, IL 60606-6995. Internet: <http://www.eatright.org>

Occupational Therapists

(O*NET 32305)

Significant Points

- Employment is projected to increase over the 1998-2008 period, but due to the effects of Federal limits on reimbursement for therapy services, the majority of expected employment growth is expected to occur during the second half of the projection period.
- Occupational therapists are increasingly taking on supervisory roles.
- More than one-fourth of occupational therapists work part time.

Nature of the Work

Occupational therapists help people improve their ability to perform tasks in their daily living and working environments. They work with individuals who have conditions that are mentally, physically, developmentally, or emotionally disabling. They also help them to develop, recover, or maintain daily living and work skills. Occupational therapists not only help clients improve basic motor functions and reasoning abilities, but also compensate for permanent loss of function. Their goal is to help clients have independent, productive, and satisfying lives.

Occupational therapists assist clients in performing activities of all types, ranging from using a computer, to caring for daily needs such as dressing, cooking, and eating. Physical exercises may be used to increase strength and dexterity, while paper and pencil exercises may be chosen to improve visual acuity and the ability to discern patterns. A client with short-term memory loss, for instance, might be encouraged to make lists to aid recall. A person with coordination problems might be assigned exercises to improve hand-eye coordination. Occupational therapists also use computer programs to help clients improve decision making, abstract reasoning, problem solving, and perceptual skills, as well as memory, sequencing, and coordination—all of which are important for independent living.

For those with permanent functional disabilities, such as spinal cord injuries, cerebral palsy, or muscular dystrophy, therapists instruct in the use of adaptive equipment such as wheelchairs, splints, and aids for eating and dressing. They also design or make special equipment needed at home or at work. Therapists develop computer-aided adaptive equipment and teach clients with severe limitations how to use it. This equipment enables clients to communicate better and to control other aspects of their environment.

Some occupational therapists, called industrial therapists, treat individuals whose ability to function in a work environment has been impaired. They arrange employment, plan work activities, and evaluate the client's progress.

Occupational therapists may work exclusively with individuals in a particular age group, or with particular disabilities. In schools, for example, they evaluate children's abilities, recommend and provide therapy, modify classroom equipment, and in general, help children participate as fully as possible in school programs and activities. Occupational therapy is also beneficial to the elderly population. Therapists help senior citizens lead more productive, active and independent lives through a variety of methods, including the use of adaptive equipment.

Occupational therapists in mental health settings treat individuals who are mentally ill, mentally retarded, or emotionally disturbed. To treat these problems, therapists choose activities that help people learn to cope with daily life. Activities include time management skills, budgeting, shopping, homemaking, and use of public transportation. They may also work with individuals who are dealing with alcoholism, drug abuse, depression, eating disorders, or stress related disorders.

Recording a client's activities and progress is an important part of an occupational therapist's job. Accurate records are essential for evaluating clients, billing, and reporting to physicians and others.

Working Conditions

Occupational therapists in hospitals and other health care and community settings usually work a 40-hour week. Those in schools may also participate in meetings and other activities, during and after the school day. More than one-fourth of occupational therapists work part-time.



An occupational therapist uses special activities to help a patient build strength in the lower arm and hand.